**Triangle-Angle Enjoyment** Name:

Geometry/Rodriguez Date:

**Part 1**: Exterior and Interior Angles of Triangles

Do the following for each triangle:

(a) Find the measure of the angle indicated by the “?”

(b) Find the measure of the remaining angles of the triangle.

**Be sure to explain exactly what you did each time.**

1. 2.

3. 4.

5. 6.

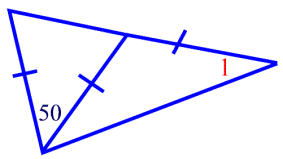
 

7. 8.

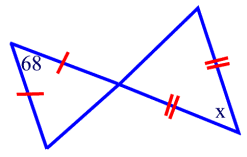
 

**Part 2:** Mixed Tri-Angular Enjoyment (ha ha!)

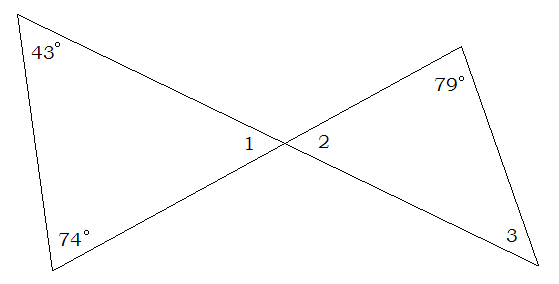
As you work through these problems, don’t forget to explain your thinking.

9. Find m∠1. Explain yourself!  
       

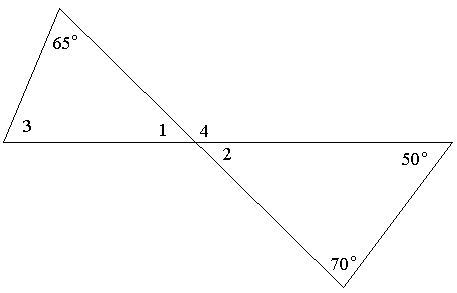
10. Find x. Explain yourself!



11. Find m∠1, m∠2, and m∠3.



12. Find m∠1, m∠2, m∠3, and m∠4.



13. Find x.

a) b)

c) d)

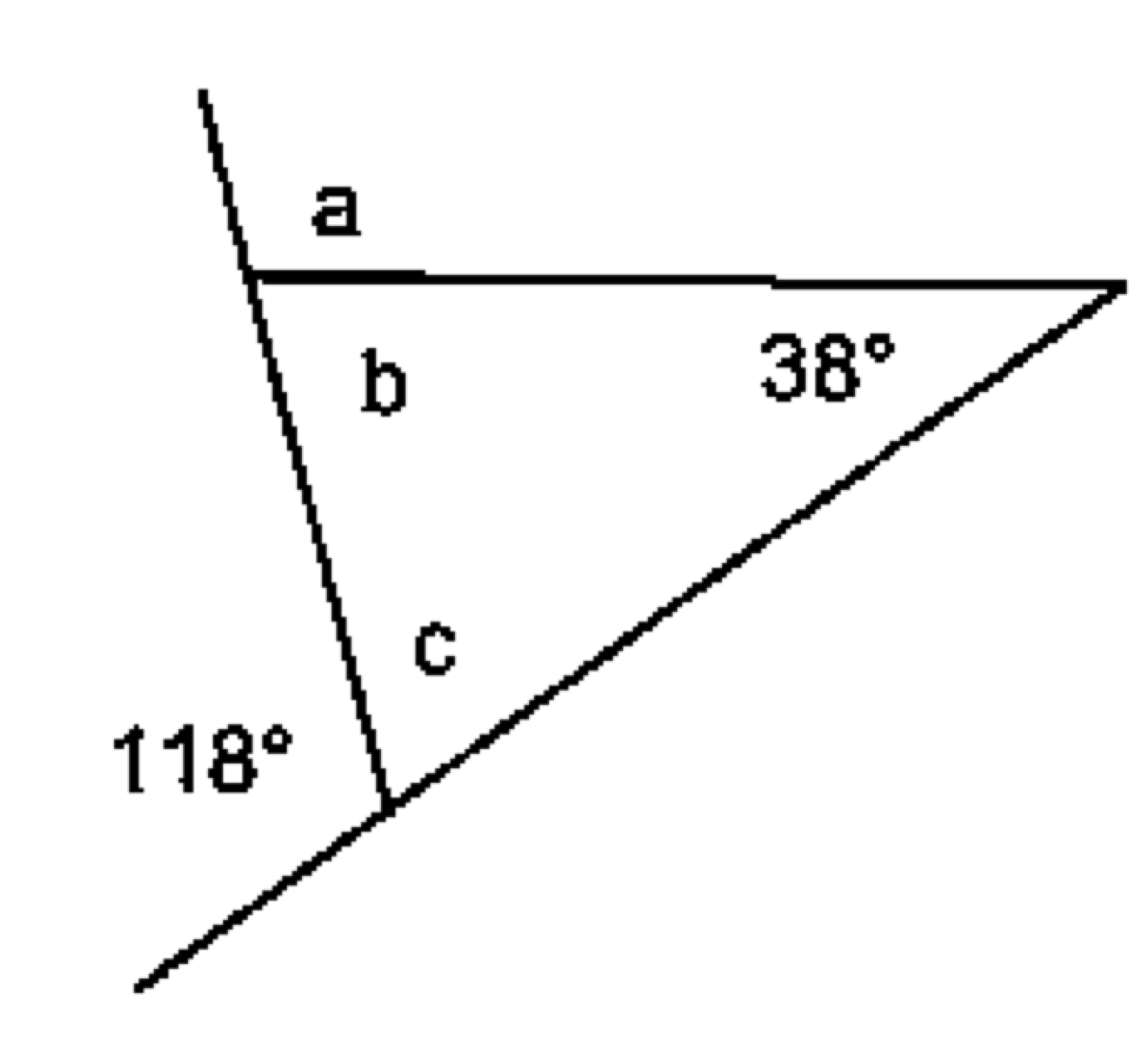
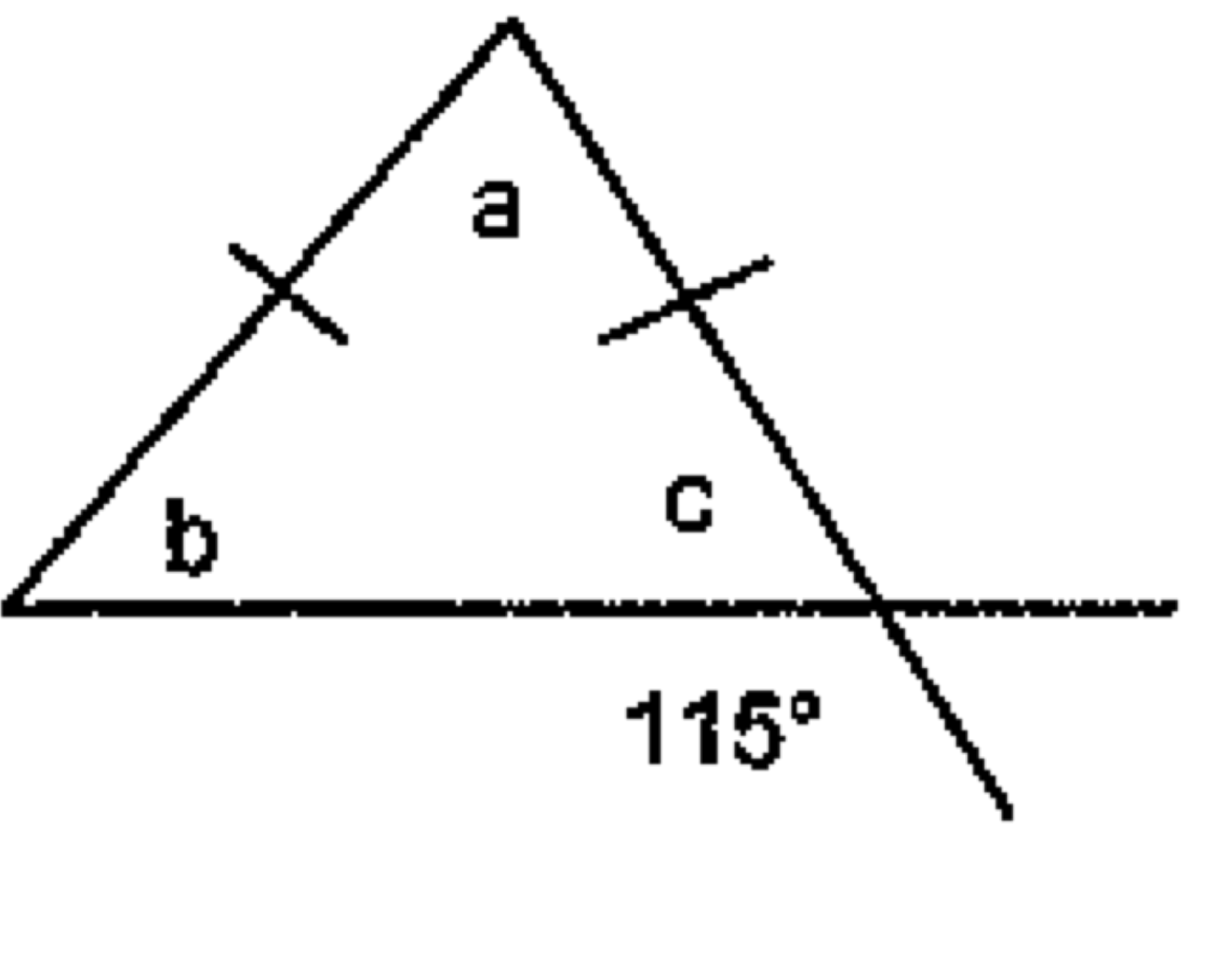
 

14. Find the measure of all of the numbered angles.

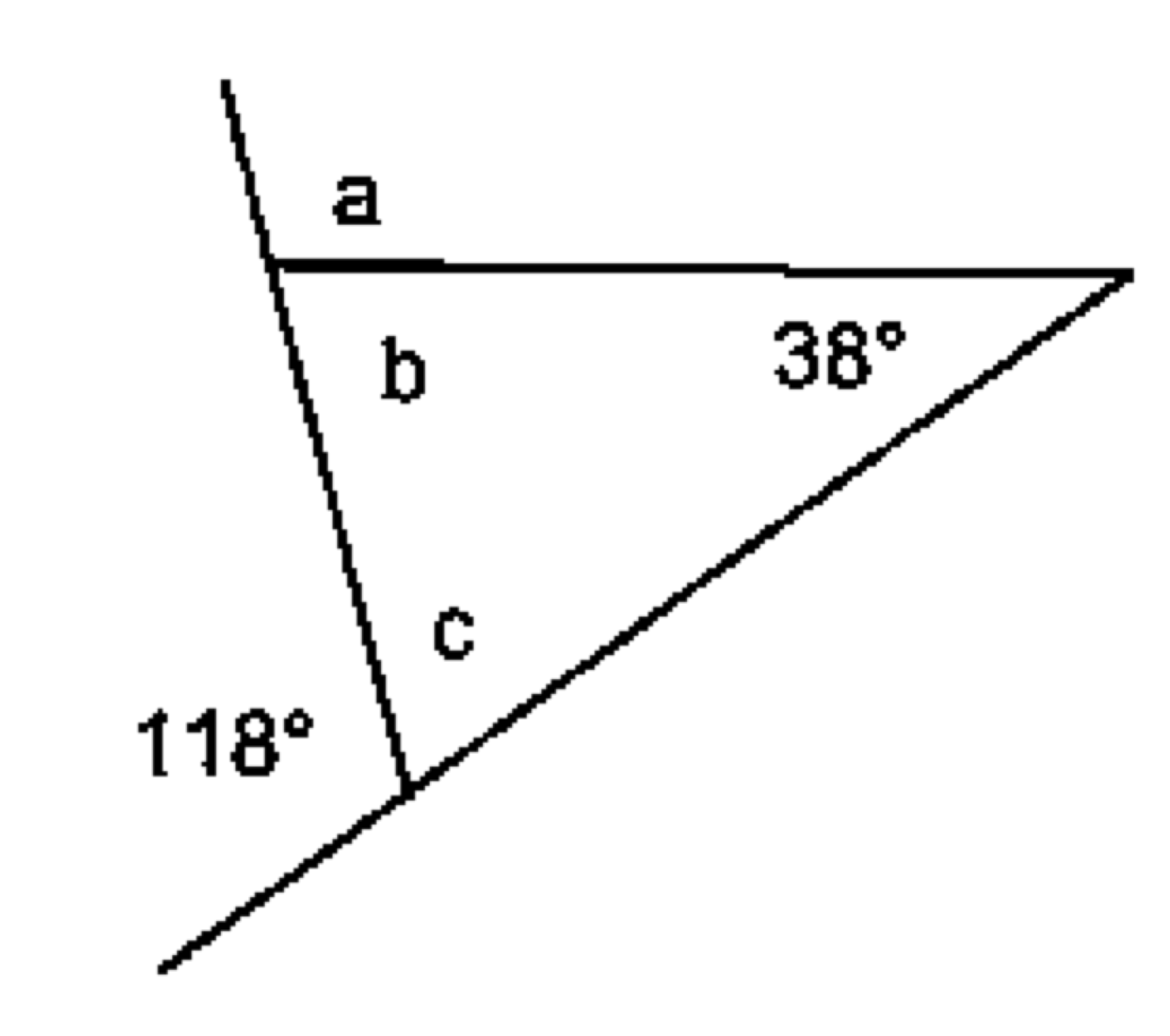
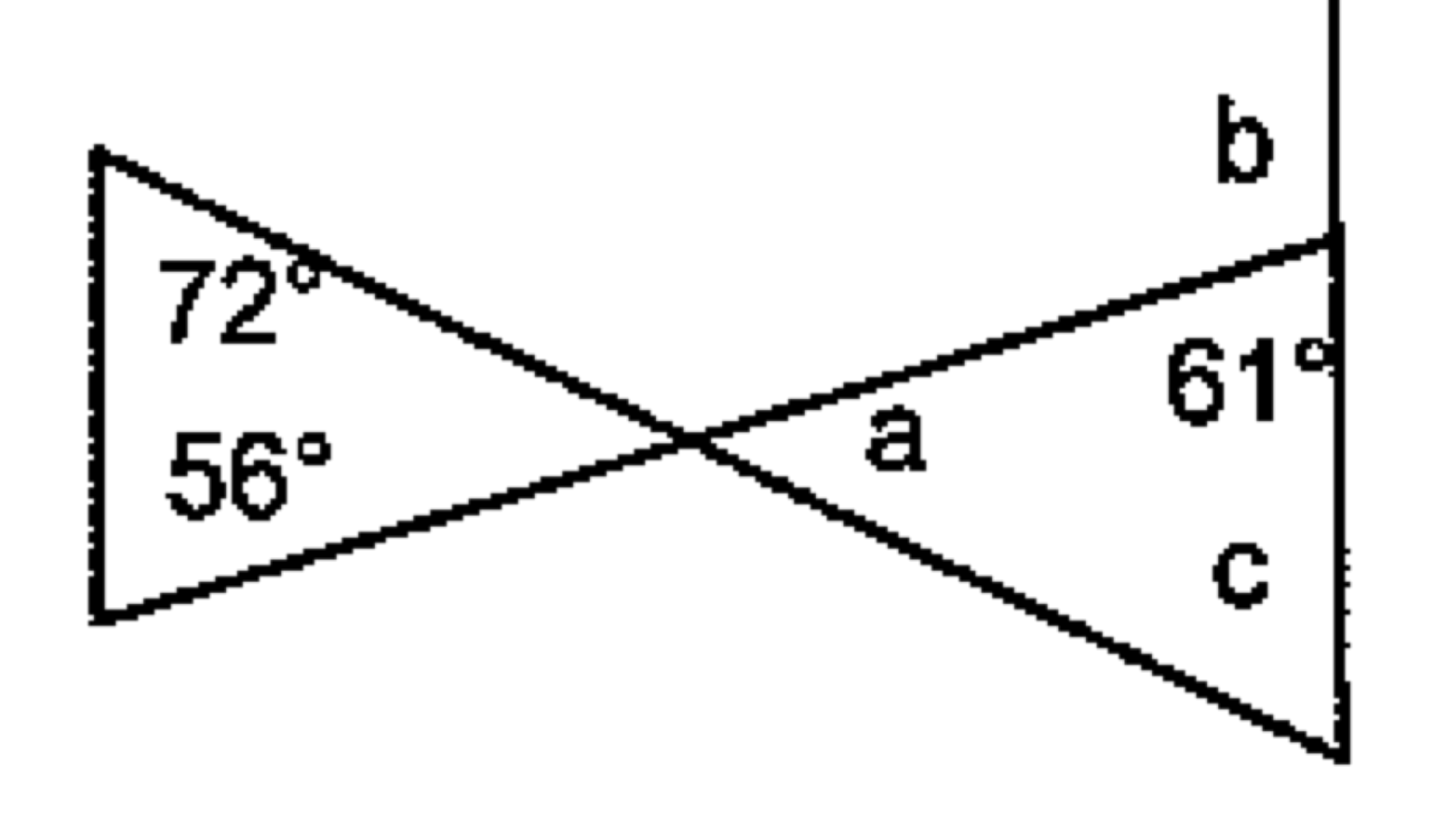


15. Find a, b, and c.

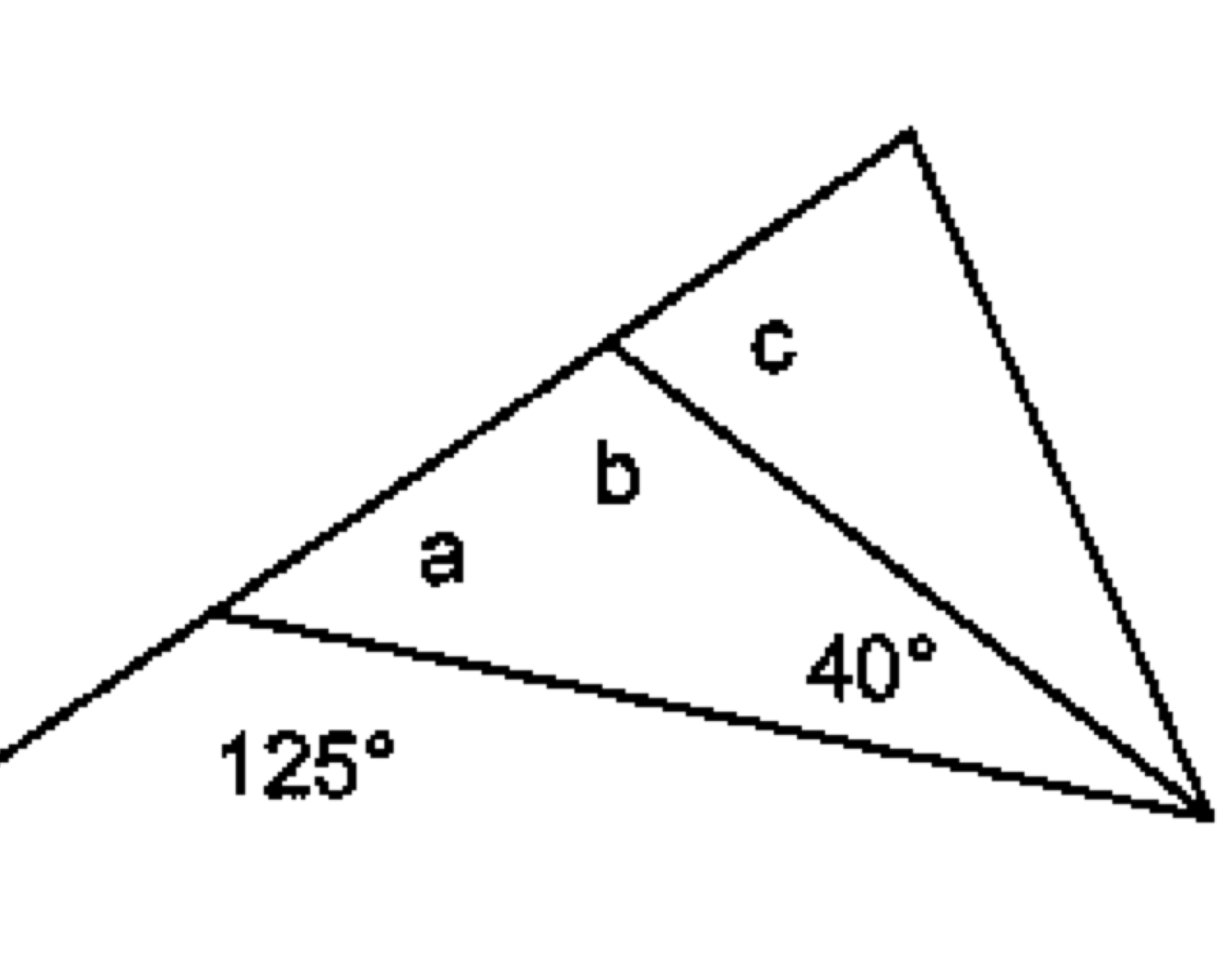
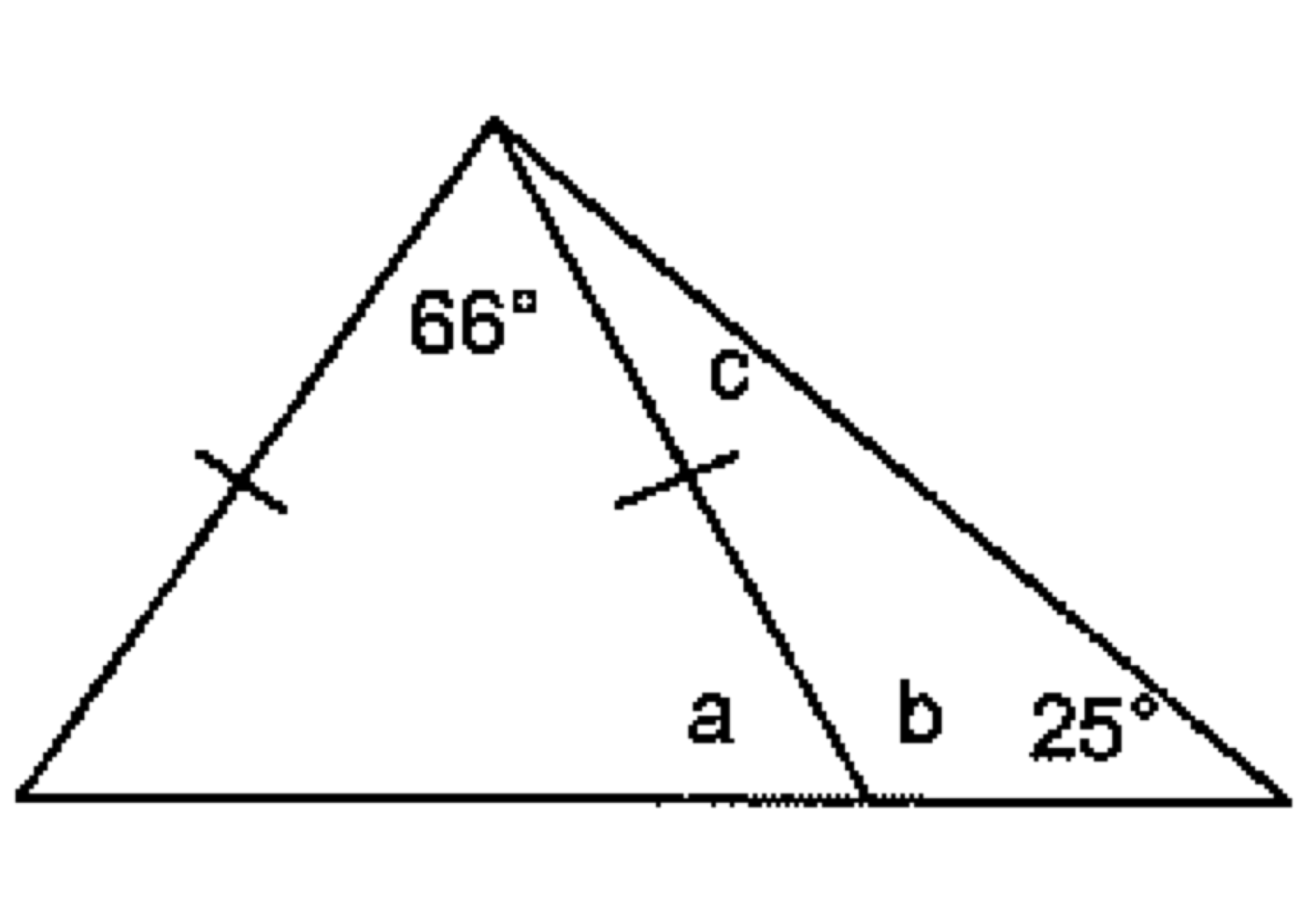
a) b)

c) d)

e) f)

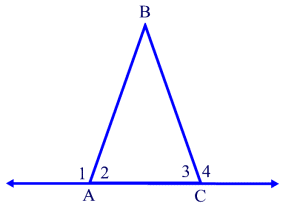
 

16. Lines EF and GH are parallel. If m∠x = 68**°** and m∠y = 117**°**, find m∠z.



17. Here’s a picture of triangle ABC. Line AC is formed by the base of the triangle and

m∠1 = m∠4. Explain why triangle ABC must be isosceles.



18. Find x.

